NOTES FROM 11.09.05 PROTON DRIVER MEETING - CIVIL

Attendees: Jim Kerby, Dixon Bogert, Jerry Leibfritz, Elliott McCrory, Maurice Ball, Mike Andrews, Bob Webber, Steve Wesseln, Al Moretti, Rod Walton, Lee Hammond, Gary VanZandbergen, Chuck Federowicz, John Santic, Ed Crumpley, Paul Lahn, Elaine McCluskey

ITEMS DISCUSSED:

1. **Review of waveguide drawing brought by Jerry and Steve:**
    a. Chris and Al had worked with Jerry and Steve to get proper dimensions shown for vertical klystron. Agreed that for a horizontal klystron of same power, waveguide extent and layout would be similar.
    b. Assuming chainfall or some other lifting mechanism to remove klystron from socket. This means putting a beam in the ceiling directly over each klystron. Need to determine what is the lifting point on the klystron.
    c. X-ray shielding would be in addition to what is shown on the drawing.
    d. Ht of penetration along the wall is shown at about 9'-6". Need to review shielding elevation at berm in existing cross-section drawings.

2. **Process Cooling with Maurice:**
    a. Cavity cooling needs more fine tuning than klystron does. Will need 45 deg F CHW. Lee says we already have this coming to the service areas, so it's available.
    b. Klystrons would use regular LCW
    c. L-0 needs a pump room like the 540 areas have. Would be fed by 45 deg F CHW, but could also be 60 deg F. Need room for LCW skid and HX (probably plate and frame)
    d. Main RF would use main LCW headers (included in civil constn package) and have secondary piping (provided by installation follow-on package).
    e. Piping from gallery to tunnel might be located at
        i. Only once along the entire linac
        ii. At every klystron (60 ft o.c.)
        iii. At each 540 service area (this provides 5 locations, and gives flexibility for shutoffs while not being excessive in piping – probably choose this)
    f. All systems working in parallel
    g. All planned space should allow for future equipment, including oversizing of piping compared to what is needed for Initial phase
    h. 540 area pumps rooms: doors should mimic MI buildings pump rooms with OH doors and a neighboring mandoor. Existing MI rooms are "efficiently" utilized, may need more room in PD. Plan to move pumps with forklift
    i. Maurice to be emailed drawings and to review and come to subsequent meeting for followup.

3. **540 Buildings – Work Areas:**
    a. Gary showed latest comparison of work areas included and with work areas removed, as had been suggested for cost savings.
    b. Concern by Elliott is that existing Linac doesn't have any room for moving things around. If aisleway in PD Linac is kept clear then no additional off-load area is required.

4. **L-0 Bldg Work Areas**
    a. Work bench areas
    b. Combination of tech and office spaces
    c. Need controls room for computers. Like either F-0 or MI-60 controls room
    d. Klystron testing area – need two of these, put them in Linac gallery bldg extension

5. **RFQ space at tunnel level:**
    a. Currently shown beyond L-0, actually in tunnel
    b. May need two RFQ's based on what SNS planning (adding another RFQ). Need to determine how these would be arranged.

Actions:

- Bob W to try to get information on optimum location of cable penetrations in each RF station
- Maurice will review pump rooms and plans for LCW piping and attend a future meeting to discuss.

Next meeting scheduled for 11/23/05 at 9:30 in WH5NE